DAVID MICHAELS PhD, MPH

6843 Tulip Hill Terrace Bethesda, MD 20816 drdavidmichaels@gmail.com

PROFESSIONAL EMPLOYMENT AND APPOINTMENTS

Current Employment and Academic Appointment

The Milken Institute School of Public Health of George Washington University
Department of Environmental and Occupational Health

Department of Environmental	and	Occupati	onal	Health
Professor				

Professor2009-presentVice-Chair for Education2019-presentInterim Chairman2008-2009Associate Chairman2004-2008Research Professor2001-2009

Department of Epidemiology

Professor 2017-present

Previous Employment and Primary Academic Appointments

Assistant Secretary for Occupational Safety and Health 2009-2017

The United States Department of Energy

Assistant Secretary for Environment, Safety and Health 1998-2001

The City University of New York Medical School

Department of Community Health and Social Medicine

Professor 1996-2001 Acting Chairperson 1992, 1996-7 Associate Professor 1990-1995

Montefiore Medical Center/Albert Einstein College of Medicine

Department of Epidemiology and Social Medicine

Director, Division of Public Health	1988-1990
Director, Program in Occupational Health	1981-1988
Curriculum Coordinator	1979-1981
Research Associate	1977-1979

Additional Academic Appointments

The Icahn School of Medicine at Mount Sinai

Department of Environmental Medicine and Public Health

Adjunct Professor 2001-present

Adjunct Associate Professor	1993-2000
Aujulici Associate i folessoi	1773-2000

The Albert Einstein College of Medicine

Department of Epidemiology and Population Health

Visiting Associate Professor1991-2008Associate Professor1990-1991Assistant Professor1981-1990Instructor1980-1981

EDUCATION

The City College of New York 1977 BA History (cum laude)

Columbia University 1981 MPH Epidemiology

1987 PhD Sociomedical Sciences

ADDITIONAL POST-GRADUATE TRAINING

Quantitative Methods in Cancer Epidemiology. The International Agency for Research on Cancer, Lyon, France, 1985.

FELLOWSHIPS AND RESIDENCIES

World Health Organization Travel Fellowship, 1992

Robert Wood Johnson Foundation Health Policy Fellowship, Washington, DC 1993-1994 Rockefeller Foundation Bellagio Center Residency, Bellagio, Italy 2018

AWARDS, HONORS & ELECTED MEMBERSHIPS

Jay S. Drotman Memorial Award, American Public Health Association, 1984

Bicentary Keynote Lecturer, Sydney Hospital, Sydney, Australia, 1988

Samuel Gompers Award, International Assoc. of Industrial Accident Boards & Commissions, 2000

National Academy of Social Insurance, 2000-2009, 2017-Present

Meritorious Service Award, United States Department of Energy, 2001

Honorary Kentucky Colonel, 2001

Honorary Duke of Paducah (Kentucky), 2001

David P. Rall Award for Advocacy in Public Health, American Public Health Association, 2001

Collegium Ramazzini (Fellow), 2003-2009, 2017-present

Scientific Freedom and Responsibility Award, American Association for the Advancement of Science, 2005

Delta Omega (Honorary Society in Public Health), 2007-present

John P. McGovern Science and Society Award, Sigma Xi, 2009

Environmental Hero of the Year, Environmental Relief Center, 2009

ASPH/Pfizer Public Health Academy of Distinguished Teachers, 2009-present

Jeffrey S. Lee Lecture, American Industrial Hygiene Conference, Toronto, Canada, 2009
Robert Wood Johnson Heath Policy Fellowship Program, Lifetime Achievement Award, 2010
Isidore I. Benrubi Lecture, Columbia University School of Public Health, 2010
Clara Lemlich Public Service Award, Triangle Shirtwaist Factory Fire Memorial, 2011
Allan Rosenfield Alumni Award for Excellence, Columbia Univ. School of Public Health, 2012
Inaugural Cancer and Society Lecture, International Agency for Research on Cancer, Lyon,
France, 2012

John T. Dunlop Memorial Forum, Harvard Law School, 2013

William Steiger Memorial Award, American Conference of Governmental Industrial Hygienists (ACGIH), 2013

Paul Robeson Award, District 1199C American Federation of State, County and Municipal Employees, 2013

Jorma Rantanen Award, Finnish Institute of Occupational Health, Helsinki, Finland, 2013 J. William Lloyd Award, United Steelworkers, 2018

William D. Wagner Award, American Conference of Governmental Industrial Hygienists (ACGIH), 2018

Milken Institute School Of Public Health George Washington University Outstanding Faculty Achievement Award 2021

ORIGINAL COMMUNICATIONS

- 1. Velasquez E, Hassan A, Belmar R, Drucker E, Michaels D. Inorganic Mercury Poisoning- Nicaragua. MMWR 29:393, 1980.
- 2. Hassan A, Velasquez E, Belmar R, Coye M, Drucker E, Landrigan P, Michaels D, Sidel K. Mercury Poisoning in Nicaragua. A Case Study of Environmental and Occupational Health Hazards by a Multinational Corporation. Int J Health Serv 11:221-226, 1981.
- 3. Michaels D. Occupational Cancer in the Black Population. The Health Effects of Job Discrimination. J Nat Med Ass 75:1014-1018, 1983.
- 4. Michaels D, Nagin D, Zoloth S. Occupational Hazards in the Dental Office. NY State Dent J 50:294-297, 1984.
- 5. Michaels D, Barrera C, Gacharna MG. Economic Development and Occupational Health in Latin America. New Directions for Public Health in Less Developed Countries. Amer J Pub Health 75:536-542, 1985.
- 6. Zoloth S, Michaels D. Asbestos Disease in Sheet Metal Workers. The Results of a Proportional Mortality Analysis. Amer J Ind Med 7:315-321, 1985.
- 7. Zoloth SR, Michaels DM, Villalbi JR, Lacher M. Patterns of Mortality among Commercial Pressmen. J Nat Cancer Inst 76:1047-1051, 1986.

- 8. Zoloth S, Michaels D, Lacher M, Nagin D, Drucker E. Asbestos Disease Screening by Non-Specialists. The Results of an Evaluation. Amer J Pub Health 76:1392-1395, 1986.
- 9. Michaels D, Zoloth S, Lacher M, Holstein E, Lilis R, Drucker E. Asbestos Disease in Sheet Metal Workers II. Radiologic Signs of Asbestosis among Active Workers. Amer J Ind Med 12:595-603, 1987.
- 10. Drucker E, Michaels D, Nagin D, Zoloth S. Exposure of Sheet Metal Workers to Asbestos during Construction and Renovation of Commercial Buildings in New York City. A Case Study in Social Medicine. Ann NY Acad Sci 502:230-244, 1987.
- 11. Michaels D, Zoloth S. Asbestos Disease in Sheet Metal Workers. Proportional Mortality Update. Amer J Ind Med 13:731-734, 1988.
- 12. Michaels D. Waiting for the Body Count. Corporate Decision Making and Bladder Cancer in the U.S. Dye Industry. Med Anthro Q 2:215-232, 1988.
- 13. Solet D, Zoloth S, Sullivan C, Jewett J, Michaels D. Patterns of Mortality in Pulp and Paper Workers. J Occup Med 31:627-630, 1989.
- 14. Alcabes P, Vossenas P, Cohen R, Braslow C, Michaels D, Zoloth S. Compliance with Isoniazid Prophylaxis in Jail. Amer Rev Resp Dis 140:1194-1197, 1989.
- 15. Shenson D, Dubler N, Michaels D. Jails and Prisons. The New Asylums? Amer J Pub Health 80:655-656, 1990.
- 16. Michaels D, Zoloth S. Mortality among Urban Bus Drivers. Int J Epidem 20:399-404, 1991.
- 17. Michaels D, Zoloth S, Stern FB. Does Low-Level Lead Exposure Increase Risk of Death? A Mortality Study of Newspaper Printers. Int J Epidem 20:978-983, 1991.
- 18. Welch LS, Michaels D, Zoloth S. Asbestos-Related Disease among Sheet Metal Workers: Preliminary Results of the National Sheet Metal Worker Asbestos Disease Screening Program. Ann NY Acad Sci 643:287-295, 1991.
- 19. Michaels D, Zoloth S, Alcabes A, Braslow C, Safyer S. Homelessness and Indicators of Mental Illness among Inmates in New York City's Correctional System. Hospital and Community Psychiatry 43:150-155, 1992.
- 20. Michaels D, Zoloth S, Bernstein N, Kass D, Schrier K. Workshops Are Not Enough. Making Right-To-Know Training Lead to Workplace Change. Amer J Ind Med 22:637-649, 1992.

- 21. Michaels D, Levine C. Estimates of the Number of Motherless Youth Orphaned by AIDS in the United States. JAMA 268:3456-3461, 1992.
- 22. Zoloth S, Safyer S, Rosen J, Michaels D, Alcabes P, Bellin E. Anergy Compromises Screening for Tuberculosis in High Risk Populations. Amer J Pub Health 83:749-751, 1993.
- 23. Welch LS, Michaels D, Zoloth SR. The National Sheet Metal Worker Asbestos Disease Screening Program. Radiologic Findings. Amer J Ind Med 25:635-648. 1994.
- 24. Michaels D. When Science Isn't Enough: Wilhelm Hueper, Robert A.M. Case and the Limits of Scientific Evidence in Preventing Occupational Bladder Cancer. Int J Occup Environ Health 1:278-288, 1995.
- 25. Michaels D. Fraud in the Workers' Compensation System. Origin and Magnitude. Occupational Medicine State of the Art Reviews 13:439-442, 1998.
- 26. Michaels D, Bingham E, Boden L, et al. Advice without Dissent. (editorial) Science 298:703, 2002.
- 27. Michaels D. Environmental Health Science and the Legacy of Popular Literature. Environ Health Perspectives 111:14-5, 2003.
- 28. Michaels D, Wagner W. Disclosure in Regulatory Science. Science 302:2073, 2003.
- 29. Wagner W, Michaels D. Equal Treatment for Regulatory Science. Extending the Controls Governing the Quality of Public Research to Private Research. Amer J Law Med 30:119-154, 2004.
- 30. Michaels D. *In Memoriam*. Thomas F. Mancuso, MD, MPH 1912-2004. Amer J Ind Med. 47:1-3, 2005. (Also published in Eur J Oncol 9.189-190, 2004.)
- 31. Michaels D. Scientific Evidence and Public Policy. (editorial) Amer J Public Health 95:Suppl1.S5, 2005.
- 32. Michaels D, Monforton C. Manufacturing Uncertainty. Contested Science and the Protection of the Public's Health and Environment. Amer J Public Health 95.Suppl1:S39-48, 2005.
- 33. Michaels D, Monforton C. Scientific Evidence in the Regulatory System: Manufacturing Uncertainty and the Demise of the Formal Regulatory System. J Law Policy 13(1): 17-41, 2005.

- 34. Dweck A, Lurie P, Michaels D, Wolfe S. Hexavalent Chromium Study's Conclusions Unjustified. (letter) J Occup Environ Med. 47:980-1, 2005.
- 35. Michaels D. Doubt is their Product. Scientific American 292:74-80, June 2005.
- 36. Michaels D, Monforton C. Lurie P. Selected Science: An Industry Campaign to Undermine an OSHA Hexavalent Chromium Standard. Environmental Health 5:5, 2006.
- 37. Neutra RR, Cohen A, Fletcher T, Michaels D, Richter ED, Soskolne CL. Toward Guidelines for the Ethical Reanalysis and Reinterpretation of Another's Research. Epidemiology. 17:335-8, 2006.
- 38. Michaels D. Mercenary Epidemiology Data Reanalysis and Reinterpretation for Sponsors with Financial Interest in the Outcome. Ann Epidemiol 16:583-5, 2006.
- 39. Michaels D. Manufactured Uncertainty: Protecting Public Health in the Age of Contested Science and Product Defense. Ann NY Acad Sci. 1076:149-62, 2006.
- 40. Michaels D. Sarbanes-Oxley for Science. Law & Contemp Problems 69(3):1-19, 2006.
- 41. Michaels D, Monforton C. The Beryllium Occupational Exposure Limit: Historical Origin and Current Inadequacy. J Occup Environ Med. 48:998-1001, 2006.
- 42. Michaels D, Monforton C, Lurie P. Lung Cancer Mortality in the German Chromate Industry, 1958 to 1998. J Occup Environ Med. 48:995-7, 2006.
- 43. Welch LS, Haile E. Dement J, Michaels D. Change in Prevalence of Non-Malignant Asbestos-Related Disease among Sheet Metal Workers 1988-2004. Chest. 131:863-9, 2007.
- 44. Michaels D, Monforton C. How Litigation Shapes the Scientific Literature: Asbestos and Disease Among Automobile Mechanics. J Law & Policy 5(3):1137-1169, 2007.
- 45. Michaels D, Monforton C. Beryllium's Public Relations Problem. Protecting Workers When There Is No Safe Exposure Level. Public Health Reports 123:79-88, 2008. doi: 10.1177/003335490812300112
- 46. Michaels D. Addressing Conflict in Strategic Literature Reviews: Disclosure is not Enough. J Epidemiol Comm Health. 2009;63:599-600. doi: 10.1136/jech.2009.089524
- 47. Michaels D. OSHA Does Not Kill Jobs: It Helps Prevent Jobs from Killing Workers. Amer J Ind Med 55:961-963, 2012. doi: 10.1002/ajim.22122. Epub 2012 Sep 19.

- 48. Michaels D, Howard J. Review of the OSHA-NIOSH Response to the Deepwater Horizon Oil Spill: Protecting the Health and Safety of Cleanup Workers. PLOS Currents Disasters. 2012 Jul 18. doi: 10.1371/4fa83b7576b6e.
- 49. Michaels D, Burke T. The Dishonest HONEST Act. (editorial) Science 356:989 2017. DOI: 10.1126/science.aan5967.
- 50. Gandhi TK, Kaplan GS, Leape L, et al. Transforming concepts in patient safety: a progress report. BMJ Quality & Safety. 2018;27(12):1019-1026. DOI: 10.1136/bmjqs-2017-007756.
- 51. Michaels, D. Reimagining Our System for Public Health Protection. Amer J Public Health 109(7):975-976. 2019. DOI: 10.2105/AJPH.2019.305126.
- 52. Michaels D, Barab J. OSHA at 50: Protecting Workers in a Changing Economy. Amer J Public Health 2020;110(5):631-635. DOI: 10.2105/AJPH.2020.305597.
- 53. Ndebele P, Shaikh H, Paichadze N, et al. Commercial determinants of health: an ethical exploration [published online ahead of print, 2020 Aug 25]. Int J Public Health. 2020;10.1007/s00038-020-01427-x. doi:10.1007/s00038-020-01427-x.
- 54. Michaels D, Wagner GR. Occupational Safety and Health Administration (OSHA) and Worker Safety During the COVID-19 Pandemic. JAMA. 2020;324(14):1389-1390. doi:10.1001/jama.2020.16343

BOOKS, CHAPTERS, TRANSLATIONS, AND REPORTS

- 1. Michaels D. Minority Workers and Occupational Cancer. The Hidden Costs of Job Discrimination. In Behavior, Health Risks and Social Disadvantage. National Academy of Sciences Interim Report No. 6. Washington, DC. National Academy Press, 1982.
- 2. Michaels D, Zoloth S. Occupational Safety. Why Do Accidents Happen? Occ Health Nursing 30.12-16, 1982.
- 3. Michaels D, O'Leary K, Frumkin H. How to Determine the Hazard of a Substance. In Occupational Health. Recognizing and Preventing Work-Related Disease. Levy B and Wegman D, editors. Boston. Little, Brown and Company, 1983.
- 4. Michaels D, Zoloth S. Securite du Travail. Pourquei les Accidents Arrivent-Ils? Histoire des Accidents du Travail (Nantes, France), 15.71-83, 1983.
- 5. Michaels D, Barrera C, Gacharna MG. Occupational Health and the Economic Development of Latin America. Multinational Monitor 9.11-13, 1984.

- 6. Michaels, D. Tackling Tight Building Syndrome. What Can Workers Do? In <u>Human Aspects in Office Automation</u>. Cohen BGF, editor. Amsterdam, The Netherlands; Elsevier Science Publishers, 1984.
- 7. Michaels D, Barrera C, Gacharna MG. O Desenvolvimento Economico e a Saude Ocupacional na America Latina. Novas Tendencias para a Saude Publica em Paises Subdesenvolvidos. Revista Brasileira de Saude Ocupacional (Sao Paolo, Brazil), 13:7-14, 1985.
- 8. Michaels D, Barrera C, Gacharna MG. Occupational Health and the Economic Development of Latin America. In <u>The Export of Hazards. Transnational Corporations and Environmental Control Issues</u>. Ives J, editor. Boston. Routledge & Kegan, Paul, 1985.
- 9. Dubler NN (ed). <u>Standards for Health Services in Correctional Institutions</u>, <u>2nd Edition</u>. (Contributed chapter "Occupational Health Services") Washington DC. American Public Health Association, 1986.
- 10. Michaels D. Remarks on the Role of the University. In <u>Asbesto y Salud en America Latina</u>. Mitastein M, editor. Mexico City. Pan American Health Organization, 1987.
- 11. Michaels D, Mendes R, Christiani DC, Xue-qi G. Occupational Health in Selected Developing Countries. In <u>Occupational Health. Recognizing and Preventing Work-Related Disease</u> (2nd Edition). Levy B and Wegman D, eds. Boston. Little, Brown and Co., 1988.
- 12. Michaels D, Zoloth S. How to Research the Toxic Effects of Chemical Substances. In Occupational Health. Recognizing and Preventing Work Related Disease (2nd Edition). Levy B and Wegman D, eds. Boston. Little, Brown and Co., 1988.
- 13. Michaels D, Mazzocchi A, Eller SW, Edelsack P. A Labor Perspective on the Role of the Health Care Provider in Occupational Health and Safety. In Environmental and Occupational Medicine (2nd Edition). Rom W, ed. Boston. Little, Brown and Co., 1992.
- Geiger HJ, Rush D, Michaels D. <u>Dead Reckoning</u>. A <u>Critical Review of the Department of Energy's Epidemiologic Research</u>. Washington DC. Physicians for Social Responsibility, 1992.
- 15. Kaminsky M, Klitzman S, Michaels D. <u>Health Profile of Cancer</u>, <u>Asthma and Childhood Lead Poisoning in Greenpoint/ Williamsburg</u>. New York City Department of Health 1992.
- 16. Belmar R, Hofmeister V, Michaels D, Moreno AR, Romieu I. Air Pollution. In <u>Environmental Epidemiology. A Project for Latin America and the Caribbean.</u> Finkelman

- J, Corey G, Calderon R, editors. Mexico City. Pan-American Health Organization, U.S. Environmental Protection Agency, International Programme on Chemical Safety and Global Environmental Epidemiology Network (WHO) 1993.
- 17. Michaels D. Colorfast Cancer. The Legacy of Corporate Malfeasance in the U.S. Dye Industry. In <u>Toxic Circles</u>. Workplace to Community. Sheehen HE and Weeden RP, editors. New Brunswick. Rutgers University Press 1993.
- 18. Michaels D, Levine C. The Youngest Survivors. Estimates of the Number of Motherless Youth Orphaned by AIDS in New York City. In <u>A Death in the Family. Orphans of the HIV Epidemic</u>. New York. United Hospital Fund 1993.
- 19. Michaels D. Projections of Motherless AIDS Orphans under 15 in Six Countries. In Action for Children Affected by AIDS. Programme Profiles and Lessons Learned. A Joint World Health Organization/United Nations Children's Fund Document. New York. UNICEF 1994.
- 20. Zoloth S, Michaels D. How to Research the Toxic Effects of Chemical Substances. In Occupational Health. Recognizing and Preventing Work-Related Disease (3rd Edition). Levy B and Wegman D, editors. Boston. Little, Brown and Company 1995.
- 21. Michaels D. ERISA State Flexibility. In <u>Winning Issues in Health Care Reform. A</u>
 <u>Report from the 1993-1994 RWJ Health Policy Fellows.</u> Advances. The Newsletter of the Robert Wood Johnson Foundation 8(1):2, 1995.
- 22. Levine C, Michaels D, Back SD. Orphans of the HIV/AIDS Epidemic. Emerging Global Trends and Programmatic Responses. In <u>AIDS and the World</u> (2nd Edition). Mann J and Tarantola D, editors. New York. Oxford University Press 1996.
- 23. Michaels D. Estimated Number of Children and Adolescents Orphaned by Maternal HIV/AIDS in New York State. In <u>Families in Crisis</u>. A <u>Report of the Working Committee in HIV Families and Children</u>. New York. Feder. Protestant Welfare Agencies 1996.
- 24. Michaels D. Estimates of Motherless Youth in New Jersey. In <u>Issues Affecting New Jersey's Orphans of the HIV Epidemic</u> New Jersey AIDS Partnership 1997.
- 25. Forest W, Kubota C, Zoloth S, Michaels D, Cone J. How to Research the Effects of Chemical Substances or Other Workplace Hazards. In <u>Occupational Health</u>. <u>Recognizing and Preventing Work-Related Disease</u> (4th Edition). Levy B and Wegman D, editors. Philadelphia. Lippincott Williams and Wilkins 2000.
- 26. Michaels D. Regulatory Science. Does Peer Review Help or Hurt? In <u>Rescuing Science from Politics</u>. Regulation and the <u>Distortion of Scientific Research</u>. Wagner W and Steinzor S, editors. New York. Cambridge University Press 2006.

- 27. Michaels D. Manufactured Uncertainty. Contested Science and the Protection of the Public's Health and Environment. In <u>Agnotology</u>. The <u>Making and Unmaking of Ignorance</u>. Proctor RN and Schiebinger L, editors. Stanford University Press 2008.
- 28. Michaels D. <u>Doubt is Their Product. How Industry's War on Science Threatens Your Health</u>. New York. Oxford University Press 2008.
- 29. Michaels D, Wagner GR. Work, Health, and Well-Being. In <u>Environmental Health: From Global to Local.</u> (3rd Edition). Frumkin H, ed. San Francisco. Jossey-Bass, 2016.
- 30. Michaels, D. Seven Ways to Improve Operations without Sacrificing Worker Safety. Harvard Business Review. March 21, 2018.
- 31. Michaels D. <u>The Triumph of Doubt: Dark Money and the Science of Deception</u>. New York. Oxford University Press 2020.
- 32. Michaels D. Wagner GR. <u>Halting Workplace COVID-19 Transmission: An Urgent Proposal to Protect American Workers</u>. The Century Foundation. October 15, 2020.

RECENT MAJOR NATIONAL AND GLOBAL LEADERSHIP POSITIONS

Administrative Conference of the United States Government Member Senior Member 2010-2017 2018-prese	ent
Senior Member 2018-prese	ent
Emerging Technologies Interagency Policy Coordination Committee 2010-2012	
National Science and Technology Council,	
Committee on Homeland and National Security 2010-2017	
National Toxicology Program,	
Chair, Executive Committee 2011-2017	
Member, Board of Scientific Counselors 2018-prese	nt
National Academy of Medicine Roundtable on Environmental Health Sciences,	
Research, and Medicine 2011-2018	
Global Reporting Initiative, Occupational Health & Safety Work Group Member 2017-2018	
Lucian Leape Institute of the Institute for HealthCare Improvement/	
National Patient Safety Foundation Member 2017-prese	
Singapore Ministry of Manpower International Advisory Panel 2018-prese	
Steelworkers Charitable & Educational/Tony Mazzocchi Center Advisory Board 2019-prese	nt
Aspen Institute Science and Society Advisory Council Member 2020	

National Academy of Sciences, Engineering, and Medicine

Study Panel Member "A Framework for Equitable Allocation of

Vaccine for the Novel Coronavirus" 2020

Study Panel Member "Respiratory Protection for the Public and

Workers without Respiratory Protection Programs at their Workplaces 2020-present

Lancet COVID-19 Commission

Member, Task Force on Workplace, School, and Travel Safety

2020-present
Biden-Harris Transition COVID-19 Advisory Board

2020-2021

PEER REVIEWER

Journals:

AIDS

American Journal of Industrial Medicine

American Journal of Public Health

International Journal of Epidemiology

International Journal of Occupational and Environmental Health

Journal of the American Medical Association

Preventive Medicine (Editorial Board)

Public Health Reports

PLOS ONE

Science

Agencies and Institutions:

National Academy of Sciences, Engineering and Medicine National Center for Environmental Health/Agency for Toxic Substance and Disease Registry National Institute for Occupational Safety and Health

INTERNATIONAL CONSULTANTSHIPS

Inter-American Center for the Study of Social Security (Mexico)

International Labour Organization

Marshall Islands Nuclear Claims Tribunal, Office of the Public Advocate

Ministry of Health and Institute of Social Security (Colombia)

Pan American Health Organization - Center for Human Ecology and Health (Mexico)

United Nations Centre on Transnational Corporations (New York)